What is claimed is

1. A method for testing a first product based on an equivalency index associated with a parameter of the product, comprising:

    a. identifying at least one measurable parameter of the first product;

    b. measuring the parameter on a group of the first product;

    c. measuring the parameter on a group of second products possessive of known desirable quality;

    d. arranging data of steps b and c in an array having a total number of array elements;

    e. providing a numeric upper limit and a numeric lower limit relating to the array, the upper limit being greater in magnitude than the lower limit, at least one array element having a magnitude between the upper limit and the lower limit;

    f. calculating an equivalency index relating to the quotient of dividing the number of array elements greater in magnitude than the lower limit and smaller in magnitude than the upper limit by the total array elements; and

    g. providing a criterion and comparing the equivalency index to the criterion to determine whether the first product and the second product are equivalent.

2. The method of claim 1 wherein the product is an item of manufacture.

3. The method of claim 1 wherein the product is a service.

4. A method for qualifying a first process based on an equivalency index associated with a product-parameter, comprising:

a. identifying at least one measurable parameter of a product produced with the first process;

b. measuring the parameter on a first group of products produced with the first process;

c. measuring the parameter on a second group of products produced with a second process having known desirable quality;

d. arranging data of steps b and c in an array having a total number of array elements;

e. providing a numeric upper limit and a numeric lower limit relating to the array, the upper limit being greater in magnitude than the lower limit, at least one array element having a magnitude between the upper limit and the lower limit;

f. calculating an equivalency index relating to the quotient of dividing the number of array elements greater in magnitude than the lower limit and smaller in magnitude than the upper limit by the total array elements; and

g. providing a criterion and comparing the equivalency index to the criterion to determine whether the first process and the second process are equivalent.

5. The method of claim 4 wherein the process is for manufacturing semiconductor integrated circuit devices.

6. The method in claim 4 wherein the products are semiconductor integrated circuit devices.

7. A method for testing a process in a first semiconductor integrated-circuit-device manufacturing facility (FAB) based on an equivalency index associated with a device-parameter, comprising:

   a. identifying at least one measurable device-parameter of a integrated circuit device;

   b. measuring the parameter on a first group of integrated circuit devices manufactured with the process in the first FAB;

   c. measuring the parameter on a second group of products produced at a second facility possessive of desirable quality;

   d. arranging data of steps b and c in an array having a total number of array elements;

   e. providing a numeric upper limit and a numeric lower limit relating to the array, the upper limit being greater in magnitude than the lower limit, at least one array element having a magnitude between the upper limit and the lower limit;

   f. calculating an equivalency index relating to the quotient of dividing the number of array elements greater in magnitude than the lower limit and smaller in magnitude than the upper limit by the total array elements; and

   g. providing a criterion and comparing the equivalency index to the criterion to determine whether the process at the first FAB and the process at the second FAB are equivalent.

8.   A method for testing a product based on an equivalency index associated with a product-parameter with a parametric upper limit and a parametric lower limit, comprising:

a.   identifying at least one measurable parameter of the product;

b.   measuring the parameter on a group of products;

c.   arranging data of step b in an array having a total number of array elements;

d.   providing a upper and a lower specification limit, the upper limit being greater in magnitude than the lower limit, at least one array element having a magnitude between the upper limit and the lower limit;

e.   calculating an equivalency index relating to the quotient of dividing the number of array elements greater in magnitude than the lower limit and smaller in magnitude than the upper limit by the total array elements; and

f.   providing a criterion and comparing the equivalency index to the criterion to determine whether the product conforms to the specification.

9.   The method in claim 8 wherein the product is an item of manufacture.

10.   The method in claim 8 wherein the product is a service.

11. A method for testing a process in a first semiconductor integrated-circuit device manufacturing facility (FAB) based on an equivalency index associated with a parameter of an integrated circuit device, comprising:

a. identifying at least one measurable parameter of the integrated circuit device;

b. measuring the parameter on a first group of integrated circuit devices manufactured with said process in the FAB;

c. arranging data of step b in an array having a total number of array elements;

d. providing a numeric upper target and a numeric lower target associated with the parameter, the upper target being greater in magnitude than the lower target, at least one array element having a magnitude between the upper target and the lower target;

e. calculating an equivalency index relating to the quotient of dividing the number of array elements greater in magnitude than the lower target and smaller in magnitude than the upper target by the total array elements; and

f. providing a criterion and comparing the equivalency index to the criterion to determine whether the devices from the FAB conform to the parametric targets.

12.   A method for determining two products, a first product and a second product, as being equal, based on an equivalency index associated with a parameter common to the two products, comprising:

    a.   identifying at least one measurable parameter common to the two products;

    b.   measuring the parameter on a group of the first product;

    c.   measuring the parameter on a group of the second product;

    d.   arranging data of steps b and c in an array having a total number of array elements;

    e.   providing a numeric upper limit and a numeric lower limit associated with the parameter and relating to the array, the upper limit being greater in magnitude than the lower limit, at least one array element having a magnitude between the upper limit and the lower limit;

    f.   calculating an equivalency index relating to the quotient of dividing the number of array elements greater in magnitude than the lower limit and smaller in magnitude than the upper limit by the total array elements; and

    g.   providing a criterion and comparing the equivalency index to the criterion to determine whether the first product and the second product are equivalent.

13.   The method in claim 12 wherein the two products are items of manufacture.

14.   The method in claim 12 wherein the two products are services.

15. A method for determining two processes, a first process and a second process, as being equal, based on an equivalency index associated with a product-parameter, comprising:

   a. identifying at least one measurable product-parameter related to the two processes;

   b. measuring the parameter on a first group of products produced with the first process;

   c. measuring the parameter on a second group of the products produced with the second process;

   d. arranging data of steps b and c in an array having a total number of array elements;

   e. providing a numeric upper limit and a numeric lower limit associated with the parameter and relating to the array, the upper limit being greater in magnitude than the lower limit, at least one array element having a magnitude between the upper limit and the lower limit;

   f. calculating an equivalency index relating to the quotient of dividing the number of array elements greater in magnitude than the lower limit and smaller in magnitude than the upper limit by the total array elements; and

   g. providing a criterion and comparing the equivalency index to the criterion to determine whether the first process and the second process are equivalent.

16. The method of claim 15 in which the two processes are for manufacturing a semiconductor integrated circuit devices.

17. The method of claim 15 wherein the products are semiconductor integrated circuit devices.

18. A method for determining a process in two semiconductor integrated-circuit device manufacturing facilities (FABs), a first FAB and a second FAB, as being equal, based on an equivalency index associated with a product-parameter, comprising:

a. identifying at least one measurable product-parameter associated with the process;

b. measuring the parameter on a first group of integrated circuit devices fabricated with the process in the first FAB;

c. measuring the parameter on a second group of integrated circuit devices fabricated with the process in the second FAB;

d. arranging data of steps b and c in an array having a total number of array elements;

e. providing a numeric upper limit and a numeric lower limit associated with the parameter and relating to the array, the upper limit being greater in magnitude than the lower limit, at least one array element having a magnitude between the upper limit and the lower limit;

f. calculating an equivalency index relating to the quotient of dividing the number of array elements greater in magnitude than the lower limit and smaller in magnitude than the upper limit by the total array elements; and

g. providing a criterion and comparing the equivalency index to the criterion to determine whether the process at FAB A and the process at FAB B are equivalent.

19. A method for testing a plurality of groups of products for conforming to parametric limits, based on an equivalency index associated with a parameter common to the products, comprising:

a. identifying at least one measurable parameter common to the products;

b. measuring the parameter on a first group of the plurality of groups of products;

c. measuring the parameter on the remaining groups of products;

d. arranging data of steps b and c in arrays each associated with a group of products, each array having a total number of array elements;

e. providing a numeric upper limit and a numeric lower limit associated with the parameter and relating to the arrays, the upper limit being greater in magnitude than the lower limit;

f. calculating an equivalency index for each array relating to the quotient of dividing the number of each said array elements greater in magnitude than the lower limit and smaller in magnitude than the upper limit by the total elements of said array; and

g. providing a criterion and comparing each equivalency index to the criterion to determine whether the products associated with the index conforms to the parametric limits.

20. The method of claim 19, in which the products are items of manufacture.

21. The method of claim 19, in which the products are services.

22. A method for determining a plurality of processes as being equivalent in quality, based on an equivalency index associated with a product-parameter, comprising:

   a. identifying at least one measurable product-parameter associated with the processes;

   b. measuring the parameter on a first group of products produced with a first process of the plurality of processes;

   c. measuring the parameter on the remaining processes of the plurality of processes;

   d. arranging data of steps b and c in arrays each associated with a process, each array having a total number of array elements;

   e. providing a numeric upper limit and a numeric lower limit associated with the parameter and relating to the arrays, the upper limit being greater in magnitude than the lower limit;

   f. calculating an equivalency index for each array relating to the quotient of dividing the number of each said array elements greater in magnitude than the lower limit and smaller in magnitude than the upper limit by the total elements of said array; and

   g. providing a criterion and comparing each equivalency index to the criterion to determine whether the process associated with said index conforms to the criterion.

23. The method in claim 22 wherein the processes are for making semiconductor integrated-circuit devices.

24. The method of claim 22 wherein the products are semiconductor integrated-circuit devices.